ROUTE	SECTION	COUNTY	SHEET	SHEETS
FAU 2657	081	LAKE	29	92
93-00081-04-CH		ILLINOIS	BUFFALO GROVE ROAD	

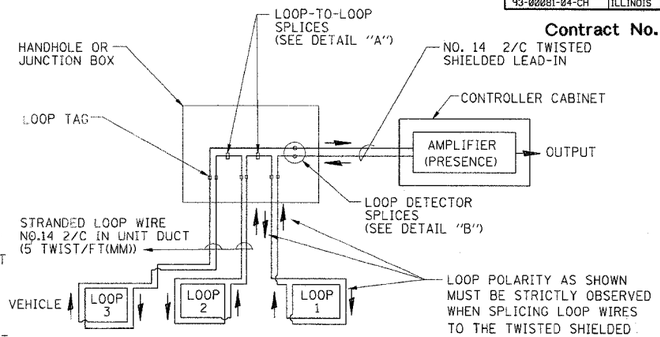
Contract No. 83656

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLE DRILLED IN THE PAVEMENT SHALL NOT BE LESS THEN 150 mm. UNIT DUCT SHALL BE INCIDENTAL TO THE COST OF THE CABLE.
2. LOOP TURNS AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. IDENTIFICATION SHALL INCLUDE LOOP LOCATION POLARITY (CLOCKWISE / COUNTERCLOCKWISE) AND WIRE DIRECTION (IN OR OUT).
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW- CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 450 mm APART.
6. LOOPS SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERIN OPERATIONS.
7. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE / COUNTHERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOP IN WATER PROOF INK AS INDICATE ON TH DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON AS-BUILT PLANS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER.

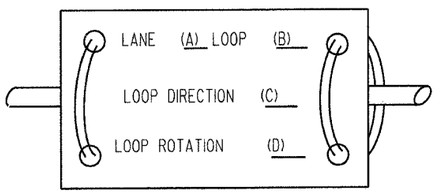
GENERAL NOTES

1. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONETS OF THE TRAFFIC SIGNAL SYSTEM FOR THE LOCATION OF UTILITIES, CALL J.U.L.I.E. TOLL FREE NUMBER 1-800-892 0123.
2. THE RESIDENT ENGINEER SHALL MARK LOCATIONS OF ALL DETECTOR LOOPS AND CONTACT THE L.C.D.O.T. TRAFFIC ENGINEER AT (708)-362-3950 FOR LOCATION APPROVAL PRIOR TO CUTTING OF THE LOOPS.
3. THE CONTRACTOR SHALL INFORM THE L.C.D.O.T. TRAFFIC ENGINEER AT (847) 362-3950 PRIOR TO THE START OF ANY WORK ON THE CONTRACT. A MINIMUM OF 72 HOUR ADVANCE NOTICE IS REQUIRED.
4. THE VIDEO VEHICLE DETECTION SYSTEM'S MANUFACTURER'S REPRESENTATIVE SHALL PROVIDE ASSISTANCE IN COAXIAL AND POWER CABLE TERMINATIONS.
5. ALL WORK ASSOCIATED WITH THE PROPOSED TELEPHONE SERVICE INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM, "FULL-ACTUATED CONTROLLER AND TYPE IV CABINET". THE CONDUIT GOING FROMM THE CABINET TO THE TELEPHONE SERVICE SHALL BE PAID FOR SEPARATELY.
6. ALL DETECTION ZONES ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED AND LAID OUT BY L.C.D.O.T. PERSONNEL.
7. A SINGLE PHOTOCELL SHALL BE INSTALLED ON THE COMBINATION POLE NEAREST TO THE CONTROLLER CABINET. THE PHOTOCELL SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE LUMINAIRE.



DETECTOR LOOP DETECTOR SCHEMATIC

LOOP LEAD-IN CABLE TAG



A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY.

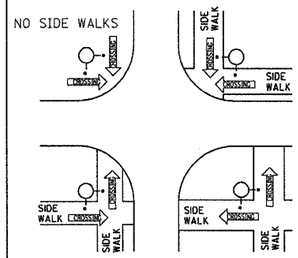
B. LOOP # 1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION

C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

NOTE:
THE COMMONWEALTH EDISON MARKETING REPRESENTATIVE FOR THIS PROJECT IS:
Ms. Dorothy Edie
TEL. (847) - 816 - 5323

PEDESTRIAN PUSH BUTTON DETECTOR LOCATION DETAIL



PEDESTRIAN PUSH BUTTON SIGN

R10-4b
9"x12"

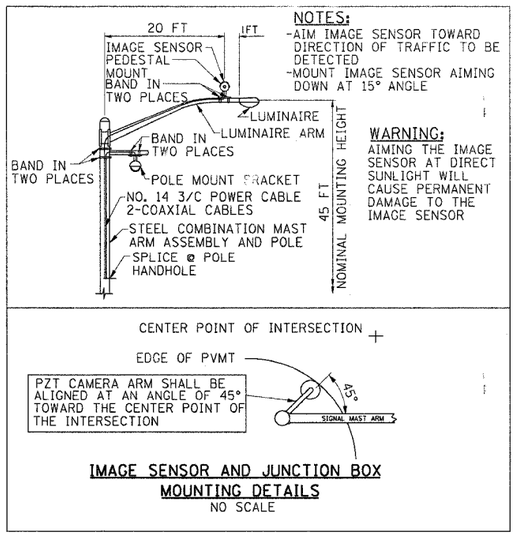
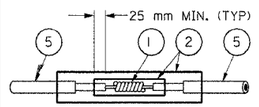
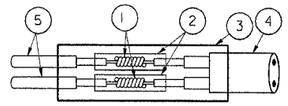


IMAGE SENSOR AND JUNCTION BOX MOUNTING DETAILS
NO SCALE

- LOOP SHALL BE SPLICE IN SERIES.
- SAW-CUT SHALLBE A MINIMUM WITH OF 8 MM
- SAW-CUT DEPTHS SHALL BE 75 mm. IF IN CONCRETE, THE SAW CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 50 mm DIAMETER CORE.



DETAIL "A"
LOOP TO LOOP SPLICE



DETAIL "B"
LOOPS TO CONTROLLER SPLICE

LOOP DETECTOR SPLICE

1. WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
2. WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 75 mm, UNDERWATER GRADE.
3. WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 150 mm UNDERWATER GRADE.
4. NO. 14 2/C TWISTED, SHIELDED CABLE.
5. LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

TS-4

Globetrotters®
Engineering Corporation
ENGINEERS ARCHITECTS
300 South Wacker Drive
Chicago, Illinois 60606
Tel. 312/922-6400

REVISIONS	
NAME	DATE

LakeCounty Division of Transportation

TRAFFIC SIGNAL STANDARD DETAIL-1

BUFFALO GROVE ROAD AT PORT CLINTON ROAD
SCALE: NONE DRAWN BY: L.S.
DATE: 04/15/04 CHECKED BY: ADO

P:\projects\01600\E\Traffic\Sheet\TS04-STD1.dgn
04/15/2004
08:42:38 AM

..\E\Traffic\Sheet\TS04-STD1.dgn 04/15/2004 08:42:38 AM